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ABSTRACT

METHOD OF SEPARATION OF PALLADIUM ISOTOPES IN
ELECTROMAGNETIC SEPARATOR USING A SOURCE OF IONS

5 The invention relates to the technology of electromagnetic separation of palladium isotopes.

The method provides placement of a working substance comprised by metal palladium in a combined with gas-discharge chamber crucible of a source of ions, heating of 10 the working substance up to the vapor state, ionization of the vapors of the working substance in the gas-discharge chamber of the source under action of electron emission from a hot cathode, forming ionic beam by electrodes of ion-optical system, separation and focusing the ionic beams 15 of isotopes in magnetic field, entrapping the ions by receiving boxes, thus temperature of the crucible heating and the gas-discharge chamber being maintained within 1500-1700°C.

The method being effectively used for industrial 20 electromagnetic palladium isotope separation and for obtaining isotopes: Pd-102, Pd-104, Pd-105, Pd-106, Pd-108 b Pd-110 with higher enrichment degree.